

IN THE CLAIMS:

- 1 A method of disposing waste, said method comprising the steps of:
forming a primary waste pond within an outer pond; and
5 establishing a stable microbiological methane fermentation zone within said
primary waste pond.
2. The method of claim 1, wherein said forming step includes the step of forming
several primary waste ponds within said outer pond.
3. The method of claim 1, wherein said forming step includes the step of forming
an outer pond comprising aerobic or semi-aerobic waste.
4. The method of claim 1, wherein said forming step includes the step of forming
15 a primary waste pond comprising semi-solid material in a highly reduced state to
facilitate conversion to methane.
5. The method of claim 1, wherein said forming step includes the step of forming
a primary waste pond that is about 3 to 5 meters deep.
6. The method of claim 1, further comprising the step of deflecting oxygen from
said primary waste pond.
7. The method of claim 6, wherein said deflecting step includes deflecting
25 oxygen to prevent intrusion of dissolved oxygen from said outer pond into said
primary waste pond.
8. The method of claim 1, wherein said establishing step includes the step of
establishing a stable microbiological methane fermentation zone comprising
30 facultative heterotrophic bacteria and methane bacteria.

9. The method of claim 8, wherein said establishing step further comprises the step of converting said facultative heterotrophic bacteria and methane bacteria into a gaseous emission

5 10. The method of claim 9, wherein said establishing step further comprises converting said facultative heterotrophic bacteria and methane bacteria into a gaseous emission comprising about 70% methane.

10 11. The method of claim 1, wherein said forming step includes the step of forming a primary waste pond that has a top surface area no greater than 0.1 hectare.

12. The method of claim 1, wherein said forming step includes the step of forming a fermentation zone within said primary waste pond.

15 13. The method of claim 12, wherein said forming step further comprises the step of forming said fermentation zone between approximately 6 to 8 meters deep.

14. The method of claim 12, wherein said forming step further comprises the step of forming a fermentation zone having a top surface area no greater than 0.09 hectare.

20 15. The method of claim 1 further comprising the step of gas capturing, said gas capturing comprising the steps of:

collecting a gas emitted from said methane fermentation zone in a submerged gas collector;

25 transporting said gas through a central mast pipe; and
collecting said gas in a gas cap.

30 16. The method of claim 15, wherein said method further comprises:
using said gas for power generation.

17. A waste disposal apparatus comprising:

a chamber and an influent pipe to deliver waste to said chamber to form a primary waste pond within an outer pond.

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